

- 19. Mary Avenue & Evelyn Avenue in the PM peak hour
- 20. Mary Avenue & El Camino Real in the PM peak hour (CMP Intersection).

Detailed analysis sheets are included in appendix B of the *Downtown Sunnyvale Improvement Program Transportation Impact Analysis Study*, available for review at the City of Sunnyvale Department of Community Development, 456 West Olive Avenue, Sunnyvale.

## 7.2 PERTINENT GOALS AND POLICIES

### 7.2.1 City of Sunnyvale General Plan

The City of Sunnyvale General Plan Land Use and Transportation Element (adopted 1997) contains the following policies and action statements pertinent to consideration of the transportation and parking aspects of the proposed project:

- *Promote integrated and coordinated local land use and transportation planning.* (Policy R1.3, p. 153)
- *Achieve an operating level of service (LOS) "E" or better for all regional roadways and intersections, as defined by the City functional classification of the street system.* (Policy R1.4, p. 154)
- *Contribute to efforts to minimize region-wide average trip length and single-occupant vehicle trips.* (Policy R1.7, p. 154)
- *Locate higher intensity land uses and developments so that they have easy access to transit services.* (Action Statement R1.7.1, p. 154)
- *Support alternative transportation service such as light rail, buses, and commuter rail, through appropriate land use planning.* (Policy R1.10.2, p. 156)
- *Encourage mixed uses near transit centers.* (Policy R1.10.3, p. 156)
- *Encourage development of multi-modal transportation centers.* (Action Statement C1.2.3, p. 159)
- *Achieve an operating level of service (LOS) of "D" or better on the City-wide roadways and intersections, as defined by the functional classification of the street system.* (Policy C3.1, p. 162)
- *Require roadway and signal improvements for development projects to minimize decline of existing levels of service.* (Action Statement C3.1.3, p. 162)

- *Study and implement physical and operational improvements to optimize roadway and intersection capacities.* (Action Statement C3.1.4, p. 163)
- *Study the use of density, floor area limits, parking management, peak-hour allocations, and other techniques to maintain or achieve acceptable levels of service on existing roadways.* (Action Statement C3.1.6, p. 163)
- *Integrate the use of land and the transportation system.* (Policy C3.2, p. 163)
- *Allow land uses that can be supported by the planned transportation system.* (Action Statement C3.2.1, p. 163)
- *Minimize driveway curb cuts, and require coordinated access when appropriate.* (Action Statement C3.2.2, p. 163)
- *Encourage mixed use developments that provide pedestrian scale and transit-oriented services and amenities.* (Action Statement C3.2.3, p. 163)
- *Continue to evaluate transportation impacts from land use proposals at a neighborhood and City-wide level.* (Action Statement C3.2.4, p. 163)
- *Support land uses that increase the likelihood of travel mode split.* (Action Statement C3.5.3, p 165)
- *Maximize the provision of bicycle and pedestrian facilities.* (Action Statement C3.5.4, p. 165)
- *Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops.* (Action Statement C3.5.7, p. 165)
- *Develop clear, safe, and convenient linkages between all modes of travel, including access to transit stations and stops, and connections between work, home, and commercial sites.* (Action Statement C3.6.1, p. 166)
- *Discourage non-neighborhood traffic from using residential neighborhood streets by accommodating traffic demand on city-wide and regional streets.* (Action Statement N1.5.3, p. 173)
- *Provide appropriate site access to commercial and office uses while preserving available road capacity.* (Policy N1.10, p. 174)
- *Locate commercial uses where traffic can be accommodated, especially during peak periods (e.g., lunch time and commute times).* (Action Statement N1.10.1, p. 174)

- *Encourage commercial enterprises and offices to provide support facilities for bicycles and pedestrians.* (Action Statement N1.10.2, p. 174)
- *Ensure the provision of bicycle support facilities at all major public use locations.* (Action Statement N1.14.2, p. 176)

### **7.2.2 Sunnyvale Downtown Specific Plan**

The Sunnyvale Downtown Specific Plan (adopted 1993) contains the following recommendations regarding traffic circulation in the project area:

- *Encourage shared parking in the downtown to maximize the use of parking areas.* (Policy P.LUC-10, p. 4)
- *Ensure that adequate and reasonably distributed parking is available to serve all uses within the downtown.* (Policy P.LUC-11, p. 4)
- *Maintain safe and efficient streets and bikeways within the downtown.* (Goal G.LUC-3, p. 4)
- *To the extent possible, maintain service level D as the lowest acceptable service level for intersections in the downtown.* (Policy P.LUC-12, p. 5)
- *Coordinate the priorities of vehicular traffic circulation with the concept of strong pedestrian and bicycle linkages throughout the downtown.* (Policy P.LUC-13, p. 5)
- *Provide a safe and comfortable system of pedestrian and bicycle pathways.* (Policy P.UD-7, p. 6)

### **7.2.3 City of Sunnyvale Bicycle Plan**

The Sunnyvale City Council passed a resolution in 1991, stating that, where feasible, space for bicycles would be created in any new development or redevelopment project, including street widenings or modifications. These bicycle facilities could include, for example, bike lanes and extra-wide outside lanes to accommodate bicycles. Also, the City Council adopted a policy to design and maintain bicycle and shared roadway facilities according to Caltrans standards for bicycles.

The City of Sunnyvale Bicycle Plan (adopted 1993), including the Sunnyvale Bicycle Map, expands upon the above City actions and provides details regarding bicycle facilities, "street suitability ratings" (which rank streets for bicyclists' skill levels), child safety programs, regional programs, bicycle accident patterns, and goals, policies, and action statements consistent with the General Plan *Land Use and Transportation Element*. Bicycle Plan goals and policies

relevant to consideration of the potential transportation effects of the proposed project include the following:

- *Cycling for recreation, commuting, and travel to school and shopping shall be encouraged.* (Goal BP.A, p. 8)
- *The City of Sunnyvale shall facilitate bicycling through its transportation planning process.* (Policy BP.A1, p.8)
- *The City shall facilitate access of bicycles to buses, light rail, and heavy rail, and improve linkages among different transportation modes.* (Policy BP.A2, p. 8)
- *Develop means of accommodating bike access at special facilities such as parks, flood control districts, utility facilities, and other institutional uses.* (Policy BP.A3, p. 8)
- *Study alternatives for improving linkages between employment and residential areas.* (Policy BP.A4, p. 8)
- *Provide for and maintain a safe and effective system of bikeways and shared roadway facilities suitable for bicycles.* (Goal BP.B, p. 8)
- *Design a program to maintain roadways and bikeways suitable for bicycle use.* (Policy BP.B1, p. 8)
- *Consider cycling needs in future roadway projects.* (Policy BP.B2, p. 8)
- *The City shall pursue all available funding options for bicycle facility construction and improvements.* (Policy BP.B3, p. 8)
- *The City's new and existing bikeways shall conform to the latest Caltrans bicycle criteria per the Caltrans Highway Design Manual, January 1987, Fourth Edition [or latest edition].* (Policy BP.B4, p. 9)
- *Make provisions for education about the rights and responsibilities of cyclists and motorists.* (Goal BP.C, p. 9)
- *Establish an effective bicycle education program for all our citizens.* (Policy BP.C1, p. 9)
- *Study the expansion of bicycle education and safety programs to include other segments of the public.* (Policy BP.C2, p. 9)
- *Provide enforcement related to the rights and responsibilities of bicyclists.* (Policy BP.C3, p. 9)

#### **7.2.4 Transportation Strategic Program**

The City of Sunnyvale is currently developing a Transportation Strategic Program (TSP) to mitigate traffic growth resulting from General Plan buildout. The preliminary program includes: (a) at-grade improvements by adding additional turn lanes at local intersections, and (b) fair share contribution by future development toward improvements at expressway intersections. The TSP also includes construction of a Mary Avenue flyover extending Mary Avenue northerly over U.S. 101 and SR 237 to the Moffett Park area.

### **7.3 IMPACTS AND MITIGATION MEASURES**

This section identifies the potential impacts of the traffic generated by the anticipated Sunnyvale Downtown Improvement Program Update growth scenario in the year 2020. Consistent with CEQA Guidelines section 15125(a), potential transportation impacts of the proposed project are determined by comparing 2020 Project Conditions to Existing Conditions.

Project impacts have been estimated following the applicable guidelines set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA), which is the congestion management agency for Santa Clara County.

#### **7.3.1 Significance Criteria**

(a) General Criteria. Based on the CEQA Guidelines, the project and project-facilitated growth scenario would be considered in this EIR to create a significant impact on transportation or parking conditions if it would:<sup>1</sup>

- (1) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- (2) Substantially increase hazards due to a design feature (i.e., sharp curves or dangerous intersections) or incompatible uses;
- (3) Result in inadequate emergency access;
- (4) Result in inadequate parking capacity; or
- (5) Conflict with adopted policies, plans, or programs supporting alternative transportation.

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<sup>1</sup>CEQA Guidelines, Appendix G, item XV(a and d-g).

(b) Freeway Segment Impacts. According to the CMP Guidelines, freeway segments are significantly impacted when LOS is downgraded from E or better to F. Freeway segments operating at LOS F under Existing or future No Project Conditions are significantly impacted if the number of new trips added by the project is more than one (1) percent of the freeway capacity.

(c) Intersection Impacts. A CMP intersection is considered to be significantly impacted if a project causes an intersection operating at LOS E or better under Existing or future No Project Conditions to operate at LOS F with the addition of the project. A CMP intersection operating at LOS F under Existing or future No Project Conditions is significantly impacted if the traffic added by the project increases the average stopped delay for critical movements by four seconds or more *and* increases the critical V/C ratio by 0.01 or more. Under additional Sunnyvale criteria, other local intersections are significantly impacted when LOS are downgraded from LOS D to LOS E or F.

### 7.3.2 Assumed Future Roadway Modifications Changes

The same future roadway system modifications assumed for the 2020 No Project Conditions scenario--see subsection 7.1.6 herein--have been applied to the 2020 Project Conditions scenario. In addition, the 2020 Project Conditions analysis assumes completion of the following downtown area roadway system modifications recommended as part of the Update project (i.e., recommended in the *Downtown Design Plan*):

- extension of Murphy Avenue one block to the south of Washington;
- extension of McKinley Avenue one block to the east of Mathilda;
- addition of new roadway medians along Washington and Sunnyvale;
- reduction in the width of the fourth (easternmost) northbound lane on Mathilda to create a widened sidewalk;
- reduction in the width of Sunnyvale Avenue between Evelyn and Iowa from four to three lanes--two northbound and one southbound, to create bicycle lanes;
- improvements at the Mathilda/El Camino Real intersection, possibly including adding a right turn signalization arrow on westbound El Camino Real approach and/or by reducing (diverting) northbound through traffic on Mathilda by modifying the Sunnyvale-Saratoga/Mathilda Avenue intersection to divert some traffic away from Mathilda and toward Sunnyvale Avenue;
- widening of sidewalks throughout the downtown;
- addition of a pedestrian crossing across Frances at Capella;

- reorganization of the surface parking lot east of Frances to provide a continuous pedestrian link through the lot to Murphy Avenue; and
- demolition of two of the existing four downtown above-grade parking structures--structures A and B which were constructed in the 1970s and are in need of seismic upgrading--and construction of new, multi-level structures designed to current seismic standards, and sized to accommodate office parking in a "shared" arrangement.

### **7.3.3 Impacts and Mitigations**

(a) 2020 Project Condition (Scenario 3)--Traffic Volume Estimates. The City of Sunnyvale traffic model was used to forecast 2020 Project Conditions (Scenario 3) traffic levels. The forecasting procedures were similar to those used to determine the 2020 No Project Conditions (Scenario 2) volumes. Land use projections in the downtown area were adjusted to reflect the Project Conditions as defined in chapter 3 (Project Description) of this EIR. The resulting project-generated growth increment, between the Existing and 2020 No Project Conditions models, was then calculated, which represents the effects of the project in year 2020, and added to the 2020 No Project forecast to determine 2020 Project Conditions.

The 2020 Project Conditions scenario (Scenario 3) assumes completion of the planned Mary Avenue Extension from Maude Avenue, over U.S. 101 and SR 237, to H Street in the Moffett Park area, as well as all roadway projects that are committed in the VTP Capital Investment Program in Santa Clara County and the project-proposed reductions in roadway width on segments of Mathilda Avenue and Sunnyvale Avenue.

The differences between the 2020 No Project (Scenario 2) and 2020 Project Conditions (Scenario 3) traffic volumes for both study freeway segments and intersections were calculated to determine the incremental volumes. This traffic growth increment was then added to the 2020 No Project Conditions volumes for each freeway segment or intersection turn movement to estimate the 2020 Project Condition (Scenario 3) volumes. Consistent with the CEQA Guidelines, the volumes for both freeway segments and intersections were reset to the existing counts if the projected 2020 traffic levels were less than existing levels.

(b) 2020 Project Condition (Scenario 3)--Freeway Level of Service Impacts. Tables 7.9 and 7.10 present freeway segment LOS calculation results for 2020 Project Conditions in the AM and PM peak hours, respectively. Associated impact conclusions are identified below:

Table 7.9  
 2020 PROJECT CONDITIONS: FREEWAY OPERATIONS--AM PEAK HOUR

Freeway	Segment	Lanes	Capacity	Existing (2000)			2020 Project Conditions			% Impact Difference
				Existing Trips	LOS	Increment Trips	LOS	% Impact		
101 NB	South of Montague Expy.	3 Mixed <sup>1</sup>	6,900	5,460	F	316	F	4.6%		
	Montague Expy. to Bower Ave.	1 HOV <sup>2</sup>	2,300	1,790	E	245	F	10.7%	-0.7%	
	Bower Ave. to Lawrence Expy.	3 Mixed	6,900	6,300	D	655	E			
	Lawrence Expy. to Fair Oaks Ave.	1 HOV	2,300	2,040	C	77	D			
	Fair Oaks Ave. to Mathilda Ave.	3 Mixed	6,900	5,940	C	745	D			
	Mathilda Ave. to Route 237	3 Mixed	6,900	4,860	B	73	D			
	Route 237 to Ellis St.	1 HOV	2,300	1,170	A	448	D			
	Ellis St. to Moffett Blvd.	3 Mixed	6,900	6,770	D	764	D			
	Moffett Blvd. to Route 85	1 HOV	2,300	1,440	A	0	C			
	Route 85 to Shoreline Blvd.	3 Mixed	6,900	4,740	F	0	F	0.0%	0.0%	
101 SB	North of Shoreline Blvd.	1 HOV	2,300	1,790	F	0	E			
	Shoreline Blvd. to Route 85	3 Mixed	6,900	3,960	F	625	F	9.1%	-0.6%	
	Route 85 to Moffett Blvd.	1 HOV	2,300	1,440	F	0	F	0.0%	-0.5%	
	Moffett Blvd. to Ellis St.	3 Mixed	6,900	3,960	F	962	F	13.9%	0.0%	
	Ellis St. to Route 237	1 HOV	2,300	1,440	F	0	F	0.0%	0.0%	
	Route 237 to Mathilda Ave.	3 Mixed	6,900	3,690	F	186	F	2.7%	-1.0%	
	Mathilda Ave. to Fair Oaks Ave.	1 HOV	2,300	1,340	F	0	F	0.0%	0.0%	
	Fair Oaks Ave. to Lawrence Expy.	3 Mixed	6,900	4,200	F	210	F	3.0%	3.0%	
	Lawrence Expy. to Bower Ave.	1 HOV	2,300	2,100	D	0	D			
	Bower Ave. to Montague Expy.	3 Mixed	6,900	4,500	F	1	F	0.0%	0.0%	
	South of Montague Expy.	1 HOV	2,300	2,200	D	1	D			

Table 7.9 (continued)

Freeway	Segment	Lanes	Capacity	2020 Project Conditions			
				Existing Trips	Increment Trips	LOS	% Impact
237 EB	West of Route 85 (to El Camino Real)	2 Total (Mixed) <sup>a</sup>	4,600	2,760	A	C	12.6%
	Route 85 to Central Expy.	1 (HOV)	2,300	488 <sup>b</sup>	A	A	0.0%
	Central Expy. to Maude Ave.	2 Total (Mixed)	4,600	2,960	F	F	0.3%
	Maude Ave. to U.S. 101	1 (HOV)	2,300	841	B	B	18.3%
	U.S. 101 to Mathilda Ave.	2 Total (Mixed)	4,600	3,180	F	F	17.4%
	Mathilda Ave. to Fair Oaks Ave.	1 (HOV)	2,300	774	B	B	-0.5%
	Fair Oaks Ave. to Lawrence Expy.	2 Total (Mixed)	4,600	3,250	F	F	-0.2%
	Lawrence Expy. to Great America Pkwy.	1 (HOV)	2,300	559	A	B	0.3%
	Great America Pkwy. to N. First St.	2 Total (Mixed)	4,600	2,610	F	F	11.2%
	East of N. First St.	1 (HOV)	2,300	386	A	A	0.3%
	2 Mixed	4,600	3,400				
	1 HOV	2,300	1,620				
	2 Mixed	4,600	4,500				
	1 HOV	2,300	2,040				
	2 Mixed	4,600	3,180				
	1 HOV	2,300	1,680				
	2 Mixed	4,600	3,640				
	1 HOV	2,300	1,170				
	2 Mixed	4,600	3,960				
	1 HOV	2,300	910				
	2 Mixed	4,600	4,300				
	1 HOV	2,300	1,560				
	2 Mixed	4,600	3,850				
	1 HOV	2,300	1,740				
	2 Mixed	4,600	3,240				
	1 HOV	2,300	1,380				
	2 Mixed	4,600	3,480				
	1 HOV	2,300	1,800				
	2 Total (Mixed)	4,600	3,950				
	1 (HOV)	2,300	766				
	2 Total (Mixed)	4,600	3,720				
	1 (HOV)	2,300	567				
	2 Total (Mixed)	4,600	3,120				
	1 (HOV)	2,300	615				
	2 Total (Mixed)	4,600	1,690				
	1 (HOV)	2,300	435				
	2 Total (Mixed)	4,600	2,640				
	1 (HOV)	2,300	602				
	2 Total (Mixed)	4,600	3,960				
	1 (HOV)	2,300	900				
	2 Mixed	4,600	2,320				
	1 HOV	2,300	910				
	2 Mixed	4,600	3,660				
	1 HOV	2,300	2,040				
	2 Mixed	4,600	2,280				
	1 HOV	2,300	1,680				
85 NB	South of I-280	2 Mixed	4,600	281	F	F	6.1%
	I-280 to Homestead Rd.	1 HOV	2,300	572	C	C	-5.8%
	Homestead Rd. to Fremont Blvd.	2 Mixed	4,600	354	F	F	0.8%
	Central Expy. to Route 85	1 HOV	2,300	645	D	D	7.7%
	West of Route 85 (to El Camino Real)	2 Total (Mixed)	4,600	353	F	F	0.5%

Table 7.9 (continued)

Freeway	Segment	Existing (2000)			2020 Project Conditions			% Impact Difference
		Lanes	Capacity	Trips	LOS	Increment Trips	LOS	
Fremont Blvd. to El Camino Real	2 Mixed	4,600	3,450	F	203	F	4.4%	0.2%
	1 HOV	2,300	1,040	A	610	D		
El Camino Real to Route 237	2 Mixed	4,600	4,320	E	796	F	17.3%	1.1%
	1 HOV	2,300	590	A	290	B		
Route 237 to Central Expwy.	2 Mixed	4,600	3,850	B	451	D		
	1 HOV	2,300	1,110	A	121	C		
North of Central Expwy. (to U.S. 101)	2 Mixed	4,600	3,160	F	878	F	19.1%	2.2%
	1 HOV	2,300	980	A	246	C		
85 SB	North of Central Expwy. (to U.S. 101)	2 Mixed	4,600	1,560	A	0	B	
	1 HOV	2,300	780	A	0	B		
Central Expwy. To Route 237	2 Mixed	4,600	1,950	A	45	B		
	1 HOV	2,300	1,110	A	0	C		
Route 237 to El Camino Real	2 Mixed	4,600	3,000	A	236	D		
	1 HOV	2,300	1,170	A	157	C		
El Camino Real to Fremont Blvd.	2 Mixed	4,600	2,640	A	329	D		
	1 HOV	2,300	1,200	A	150	C		
Fremont Blvd. to Homestead Rd.	2 Mixed	4,600	4,180	C	445	D		
	1 HOV	2,300	850	A	160	B		
Homestead Rd. to I-280	2 Mixed	4,600	1,690	A	296	B		
	1 HOV	2,300	1,560	A	178	D		
South of I-280	2 Mixed	4,600	2,700	A	672	D		
	1 HOV	2,300	260	A	78	A		
I-280 EB	West of Route 85	3 Mixed	6,900	6,120	B	348	D	
	1 HOV	2,300	330	A	72	A		
Route 85 to De Anza Blvd.	3 Mixed	6,900	5,780	B	343	D		
	1 HOV	2,300	390	A	35	A		
De Anza Blvd. to Wolfe Rd.	3 Mixed	6,900	6,440	C	312	D		
	1 HOV	2,300	520	A	32	A		
East of Wolfe Rd.	3 Mixed	6,900	5,400	B	261	D		
	1 HOV	2,300	780	A	159	B		
I-280 WB	East of Wolfe Rd.	3 Mixed	6,900	4,260	F	76	F	1.1%
	1 HOV	2,300	2,150	C	226	D		-0.9%
Wolfe Rd. to De Anza Blvd.	3 Mixed	6,900	4,650	F	343	F	5.0%	-0.3%
	1 HOV	2,300	1,740	B	110	D		
De Anza Blvd. to Route 85	3 Mixed	6,900	5,940	B	89	D		
	1 HOV	2,300	850	A	124	B		
West of Route 85	3 Mixed	6,900	4,950	F	214	F	3.1%	-1.2%
	1 HOV	2,300	1,440	A	149	D		

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Mixed = mixed-flow (unrestricted) lane.

<sup>2</sup> HOV = high-occupancy vehicle (car pool) lane.

<sup>3</sup> Facility type in parenthesis indicates future condition.

<sup>4</sup> "Existing" volumes on future HOV facilities, shown underlined, based on ratio from model and assumed to operate at average speed of 65 mph.

**Table 7.10  
 2020 PROJECT CONDITIONS (SCENARIO 3): FREEWAY OPERATIONS--PM PEAK HOUR**

Freeway	Segment	Lanes	Capacity	Existing (2000)			2020 Project Conditions			% Impact Difference
				Existing Trips	LOS	Increment Trips	LOS	Increment Trips	% Impact	
101 NB	South of Montague Expwy.	3 Mixed <sup>1</sup>	6,900	5,940	B	652	D			
		1 HOV <sup>2</sup>	2,300	850	A	128	B			
	Montague Expwy. to Bowers Ave.	3 Mixed	6,900	5,940	C	584	D			
		1 HOV	2,300	1,110	A	0	C			
	Bowers Ave. to Lawrence Expwy.	3 Mixed	6,900	6,600	C	7	D			
		1 HOV	2,300	850	A	0	B			
	Lawrence Expwy. to Fair Oaks Ave.	3 Mixed	6,900	5,220	B	450	D			
		1 HOV	2,300	1,040	A	78	C			
	Fair Oaks Ave. to Mathilda Ave.	3 Mixed	6,900	4,500	A	206	D			
		1 HOV	2,300	910	A	0	B			
	Mathilda Ave. to Route 237	3 Mixed	6,900	5,040	B	18	D			
		1 HOV	2,300	1,200	A	0	C			
	Route 237 to Ellis St.	3 Mixed	6,900	4,500	F	106	F			
		1 HOV	2,300	1,380	A	0	C			
	Ellis St. to Moffett Blvd.	3 Mixed	6,900	4,500	F	156	F			
		1 HOV	2,300	1,380	A	25	C			
	Moffett Blvd. to Route 85	3 Mixed	6,900	4,550	F	58	F			
		1 HOV	2,300	1,960	E	0	E			
	Route 85 to Shoreline Blvd.	3 Mixed	6,900	4,350	F	5	F			
		1 HOV	2,300	1,320	A	0	C			
	North of Shoreline Blvd.	3 Mixed	6,900	4,500	F	0	F			
		1 HOV	2,300	1,980	B	0	D			
101 SB	North of Shoreline Blvd.	3 Mixed	6,900	3,870	F	121	F			
		1 HOV	2,300	2,040	C	0	D			
	Shoreline Blvd. to Route 85	3 Mixed	6,900	5,360	E	72	E			
		1 HOV	2,300	1,800	B	238	D			
	Route 85 to Moffett Blvd.	3 Mixed	6,900	5,940	C	0	C			
		1 HOV	2,300	1,440	A	0	C			
	Moffett Blvd. to Ellis St.	3 Mixed	6,900	5,940	C	436	D			
		1 HOV	2,300	1,260	A	0	C			
	Ellis St. to Route 237	3 Mixed	6,900	5,940	C	467	D			
		1 HOV	2,300	1,260	A	0	C			
	Route 237 to Mathilda Ave.	3 Mixed	6,900	5,220	B	0	D			
		1 HOV	2,300	1,320	A	6	C			
	Mathilda Ave. to Fair Oaks Ave.	3 Mixed	6,900	3,360	F	650	F			
		1 HOV	2,300	1,040	A	0	B			
	Fair Oaks Ave. to Lawrence Expwy.	3 Mixed	6,900	4,050	F	260	F			
		1 HOV	2,300	1,170	A	314	C			
	Lawrence Expwy. to Bowers Ave.	3 Mixed	6,900	3,210	F	963	F			
		1 HOV	2,300	1,860	B	322	D			
	Bowers Ave. to Montague Expwy.	3 Mixed	6,900	3,840	F	473	F			
		1 HOV	2,300	1,560	F	236	F			
	South of Montague Expwy.	3 Mixed	6,900	3,480	F	504	F			
		1 HOV	2,300	1,380	F	260	F			

Table 7.10 (continued)

Freeway	Segment	2020 Project Conditions				% Impact Difference	
		Existing (2000) Trips	Increment Trips	LOS	% Impact		
237 EB	West of Route 85 (to El Camino Real)	2 Total (Mixed) <sup>3</sup> 1 (HOV) 2 Total (Mixed) 1 (HOV)	4,600 2,300 4,600 2,300 4,600 1,690 356 1,690 518 1,690 340 2,760 2,300 4,600	A B A A A A A A A A A A A A	2,760 687 2,470 356 1,690 518 1,690 340 2,760 408 2,400 650 2,520 460 3,120 850 3,480 1,040 3,350 910	248 55 360 47 687 190 860 164 755 110 622 370 435 477 385 449 302 568 163 532	
	Route 85 to Central Expwy.						
	Central Expwy. to Maude Ave.						
	Maude Ave. to U.S. 101						
	U.S. 101 to Mathilda Ave.						
	Mathilda Ave. to Fair Oaks Ave.						
	Fair Oaks Ave. to Lawrence Expwy.						
	Lawrence Expwy. to Great America Pkwy.						
	Great America Pkwy. to N. First St.						
	East of N. First St.						
237 WB	East of N. First St.	2 Mixed 1 HOV 2 Mixed 1 HOV 2 Mixed 1 HOV 2 Mixed 1 HOV 2 Total (Mixed) 1 (HOV) 2 Total (Mixed) 1 (HOV) 2 Total (Mixed) 1 (HOV)	4,600 2,300 4,600 2,300 4,600 2,300 4,600 2,300 4,600 2,300 4,600 2,300 4,600	B A E A C A B B B B B B B B	3,850 590 4,230 850 4,070 460 3,960 1,240 4,430 714 4,180 582 4,290 712 2,820 465 3,320 463 3,450 467	33 33 18 98 12 67 10 74 183 35 533 89 680 127 701 135 93 21 46 16	D A E B D A D C D B D D B D A A F A A A A
	N. First St. to Great America Pkwy.						
	Great America Pkwy. to Lawrence Expwy.						
	Lawrence Expwy. to Fair Oaks Ave.						
	Fair Oaks Ave. to Mathilda Ave.						
	Mathilda Ave. to U.S. 101						
	U.S. 101 to Maude Ave.						
	Central Expwy. to Route 85						
	West of Route 85 (to El Camino Real)						
85 NB	South of I-280	2 Mixed 1 HOV 2 Mixed 1 HOV 2 Mixed 1 HOV	4,600 2,300 4,600 2,300 4,600 2,300	A A A A A A	1,690 330 2,340 2,340 4,080 390	C A C A D A	
	I-280 to Homestead Rd.						
	Homestead Rd. to Fremont Ave.						

**Table 7.10 (continued)**

Freeway	Segment	Lanes	Capacity	Existing (2000)		2020 Project Conditions		% Impact Difference
				Existing Trips	LOS	Increment Trips	LOS	
Fremont Ave. to El Camino Real	2 Mixed	4,600	3,000	A	444	D		
El Camino Real to Route 237	1 HOV	2,300	260	A	93	A		
Route 237 to Central Expyw.	2 Mixed	4,600	1,950	A	388	C		
North of Central Expyw. (to U.S. 101)	1 HOV	2,300	130	A	0	A		
85 SB	North of Central Expyw. (to U.S. 101)	2 Mixed	4,600	2,340	A	249	C	
Central Expyw. To Route 237	1 HOV	2,300	2,340	A	63	A		
Route 237 to El Camino Real	2 Mixed	4,600	2,340	A	682	C		
El Camino Real to Fremont Ave.	1 HOV	2,300	2,080	A	203	B		
Fremont Ave. to Homestead Rd.	2 Mixed	4,600	520	A				
Homestead Rd. to I-280	1 HOV	2,300	2,750	F	46	F	1.0%	1.0%
South of I-280	2 Mixed	4,600	2,300	F	0	B	2.9%	2.7%
I-280 EB	West of Route 85	3 Mixed	6,900	4,920	F	133	F	2.3%
Route 85 to De Anza Blvd.	1 HOV	2,300	1,380	A	0	A	4.6%	1.4%
De Anza Blvd. to Wolfe Rd.	3 Mixed	6,900	4,280	F	108	F	7.7%	1.3%
East of Wolfe Rd.	1 HOV	2,300	1,170	A	660	D		
	3 Mixed	6,900	4,500	F	212	F		
	1 HOV	2,300	1,800	B	540	D		
	3 Mixed	6,900	2,300	F	353	F		
	1 HOV	2,300	1,500	A	473	D		
	2 Mixed	4,600	4,070	C	326	D		
	1 HOV	2,300	910	A	500	C		
	2 Mixed	4,600	4,280	F	534	F		
	1 HOV	2,300	1,440	A	466	D		
I-280 WB	East of Wolfe Rd.	3 Mixed	6,900	4,920	F	892	F	12.9%
Wolfe Rd. to De Anza Blvd.	1 HOV	2,300	1,380	A	124	D		
De Anza Blvd. to Route 85	3 Mixed	6,900	4,280	F	475	F	6.9%	0.9%
West of Route 85	1 HOV	2,300	1,170	A	113	C		
	3 Mixed	6,900	4,500	F	482	F		
	1 HOV	2,300	1,260	A	120	C		
	3 Mixed	6,900	6,750	D	336	E		
	1 HOV	2,300	1,320	A	361	D		

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Mixed = mixed-flow (unrestricted) lane.

<sup>2</sup> HOV = high-occupancy vehicle (car pool) lane.

<sup>3</sup> Facility type in parenthesis indicates future condition.

<sup>4</sup> "Existing" volumes on future HOV facilities, shown underlined, based on ratio from model and assumed to operate at average speed of 65 mph.

**Impact 7-1: Impacts on Freeway Segments (Project Conditions).** The 2020 Project Conditions scenario (Scenario 2)--i.e., the addition of project-related traffic to the anticipated 2020 No Project scenario (Scenario 2)--would result in significant impacts on the following ten freeway segments:

- U.S. 101 northbound between SR 85 and Shoreline Boulevard in the AM peak hour;
- U.S. 101 southbound between Lawrence Expressway and Bowers Avenue in the PM peak hour;
- U.S. 101 southbound north of Shoreline Boulevard in the PM peak hour;
- SR 85 northbound between El Camino Real and SR 237 in the Am peak hour;
- SR 85 northbound north of the Central Expressway in the AM peak hour;
- SR 85 southbound between Central Expressway and SR 237 in the PM peak hour;
- SR 85 southbound between SR 237 and El Camino Real in the PM peak hour;
- SR 85 southbound between El Camino Real and Fremont Avenue in the PM peak hour;
- SR 85 southbound between Fremont Boulevard and Homestead Road in the PM peak hour; and
- SR 237 eastbound east of N. First Street in the PM peak hour.

Under the 2020 Project Conditions scenario, these ten segments would be subject to a downgrading of freeway segment operation from LOS E to LOS F due to the addition of the project trips, or where the freeway segment is already operating at LOS F under the Existing Conditions or the 2020 No Project scenario and the project trip increment) is greater than 1 percent of the freeway segment design capacity. The project would therefore have a ***potentially significant impact*** on the operation of these freeway segments (see criterion 1 in subsection 7.3.1, "Significance Criteria," above).

**Mitigation 7-1.** Provision of one additional travel lane along these ten freeway segments would reduce impacts due to the project-related traffic increment to a less-than-significant level. However, widening of these freeway segments would require additional right of way acquisition and other costs significantly greater than current funding constraints for freeway expansion in Santa Clara County, and is therefore considered infeasible. In anticipation of such freeway impacts, and consistent with State law, the Santa Clara Valley Transportation Authority is currently preparing a Countywide Deficiency Plan which will identify offsetting improvements and other mitigation measures for CMP freeway impacts on a regional basis, and associated local roles and mechanisms for implementing these improvements. Implementation of this plan will reduce these impacts to a ***less-than-significant*** level.

**Impact 7-2: Impacts on Freeway Segments (Project or No Project Conditions).** Additional freeway segments would be subject to significant impacts due to projected 2020 traffic volume conditions with or without the project. These freeway segments are identified in bold type in Tables 7.10 and 7.11 and are listed below. Under year 2020 cumulative conditions with or without the project, these identified freeway segments would be subject to a downgrading of freeway operation from LOS E to LOS F, or where the freeway segment is already operating at LOS F under the Existing Conditions scenario, a traffic volume increase which is greater than 1 percent of design capacity. Either effect would represent a ***potentially significant cumulative impact*** on freeway operations (see criterion 1 in subsection 7.3.1, "Significance Criteria," above.)

The segments that would be significantly impacted under 2020 Project Conditions according to the CMP criteria are listed below.

- U.S. 101 northbound south of Montague Expressway in the AM peak hour
- U.S. 101 northbound between Montague Expressway and Bowers Avenue and SR 237 in the AM peak hour
- U.S. 101 northbound between SR 237 and Ellis Street in both the AM and PM peak hours
- U.S. 101 northbound between Ellis Street and Moffett Boulevard in both the AM and PM peak hours
- U.S. 101 northbound between Moffett Boulevard and SR 85 in the AM peak hour

- U.S. 101 northbound between SR 85 and Shoreline Boulevard in both the AM and PM peak hours
- U.S. 101 northbound north of Shoreline Boulevard in the AM peak hour
- U.S. 101 southbound north of Shoreline Boulevard in the PM peak hour
- U.S. 101 southbound between Moffett Boulevard and Ellis Street in the AM peak hour
- U.S. 101 southbound between Ellis Street and SR 237 in the AM peak hour
- U.S. 101 southbound between Mathilda Avenue and Fair Oaks Avenue in the PM peak hour
- U.S. 101 southbound between Fair Oaks Avenue and Lawrence Expressway in the PM peak hour
- U.S. 101 southbound between Lawrence Expressway and Bowers Avenue in the PM peak hour
- U.S. 101 southbound between Bowers Avenue and Montague Expressway in the PM peak hour
- U.S. 101 southbound south of Montague Expressway in the PM peak hour
- SR 237 eastbound between SR 85 and Central Expressway in the AM peak hour
- SR 237 eastbound between Central Expressway and Maude Avenue in the AM peak hour
- SR 237 eastbound between Maude Avenue and U.S. 101 in the AM peak hour
- SR 237 eastbound between U.S. 101 and Mathilda Avenue in the AM peak hour
- SR 237 eastbound between Mathilda Avenue and Fair Oaks Avenue in the AM peak hour
- SR 237 eastbound east of North First Street in the PM peak hour
- SR 237 westbound between Maude Avenue and Central Expressway in the PM peak hour
- SR 237 westbound between Central Expressway and SR 85 in the PM peak hour

- SR 237 westbound between SR 85 and El Camino Real in the PM peak hour
- SR 85 northbound south of I-280 in the AM peak hour
- SR 85 northbound between I-280 and Homestead Road in the AM peak hour
- SR 85 northbound between Homestead Road and Fremont Avenue in the AM peak hour
- SR 85 northbound between Fremont Avenue and El Camino Real in the AM peak hour
- SR 85 northbound between El Camino Real and SR 237 in the AM peak hour
- SR 85 northbound between Central Expressway and U.S. 101 in the AM peak hour
- SR 85 southbound between Central Expressway and U.S. 101 in the PM peak hour
- SR 85 southbound between Central Expressway and SR 237 in the PM peak hour
- SR 85 southbound between SR 237 and El Camino Real in the PM peak hour
- SR 85 southbound between El Camino Real and Fremont Avenue in the PM peak hour
- SR 85 southbound between Fremont Avenue and Homestead Road in the PM peak hour
- SR 85 southbound south of I-280 in the PM peak hour
- I-280 eastbound west of SR 85 in the PM peak hour
- I-280 eastbound between SR 85 and De Anza Boulevard in the PM peak hour
- I-280 eastbound between De Anza Boulevard and Wolfe Road in the PM peak hour
- I-280 westbound east of Wolfe Road in the AM peak hour
- I-280 westbound between Wolfe Road and De Anza Boulevard in the AM peak hour
- I-280 westbound west of SR 85 in the AM peak hour.

**Mitigation 7-2:** Provision of one additional travel lane along these freeway segments would reduce cumulative operational impacts under the 2020 Project Conditions scenario to a less than significant level. However, widening of these freeway segments would require substantial right of way acquisition and other costs significantly greater than the funding constraints for freeway expansion in Santa Clara County, and is therefore considered infeasible. In anticipation of such cumulative freeway impacts, and consistent with State law, the Santa Clara Valley Transportation Authority is currently preparing a Countywide Deficiency Plan which will identify offsetting improvements and other measures for CMP freeway impacts on a regional basis. Implementation of this plan will reduce these impacts to a ***less than significant level.***

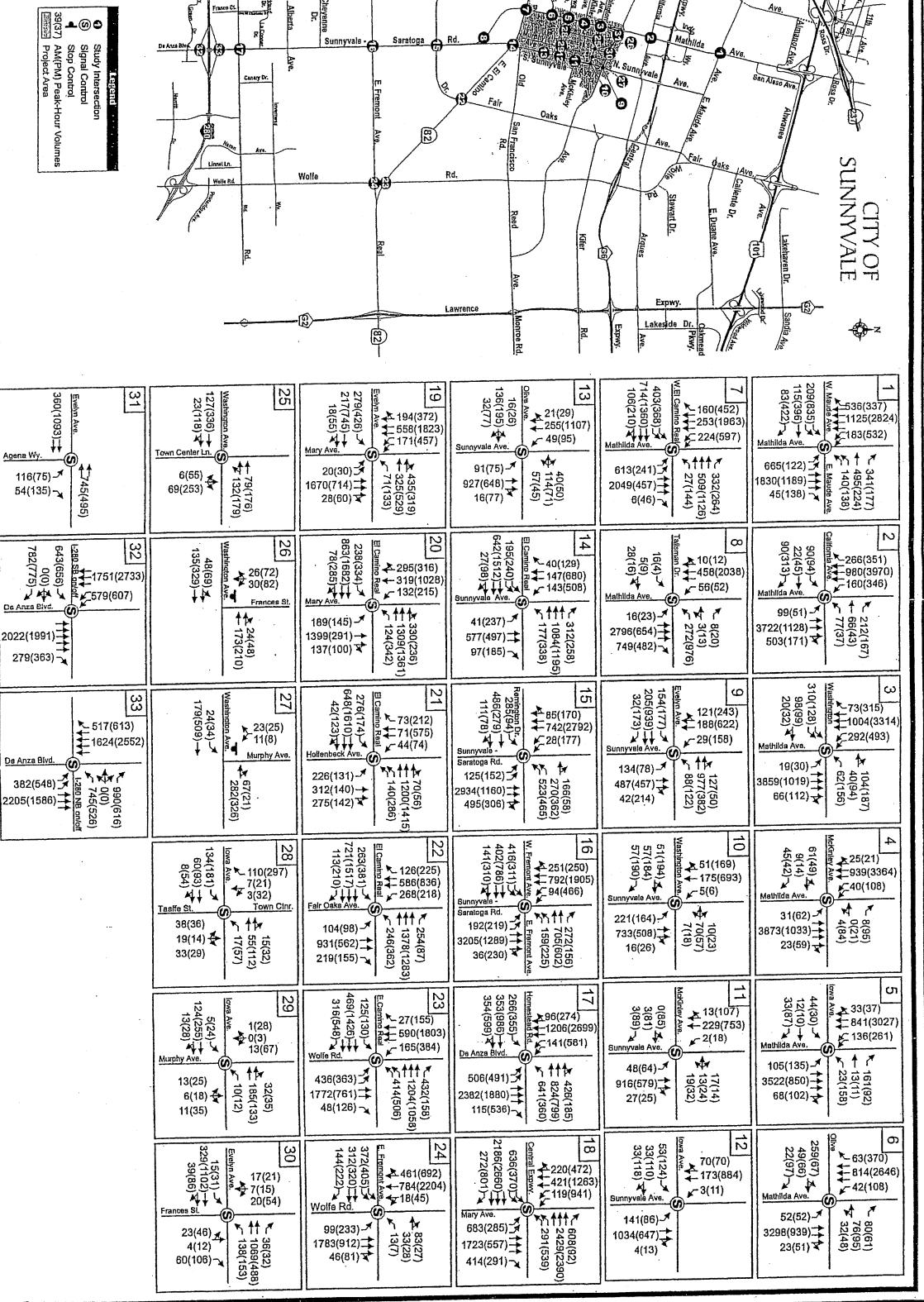
(c) 2020 Project Conditions (Scenario 3)--Intersection Level of Service Impacts. Figure 7.5 presents traffic volumes estimated at the study intersections under 2020 Project Conditions (Scenario 3). Table 7.11 presents intersection LOS calculation results for 2020 Project Conditions (Scenario 3). Associated impact conclusions are identified below:

**Impact 7-3: Impacts on Intersections (Project Conditions).** The 2020 Project Conditions scenario (Scenario 3)--i.e., the addition of project-related traffic to the anticipated 2020 No Project Conditions (Scenario 2)--would result in a significant operational (level of service) impact at the following intersection:

- El Camino Real and Sunnyvale Avenue: a change in LOS from D- to E+ in the AM peak hour.

The project would therefore have a ***potentially significant impact*** at this location (see criterion 1 in subsection 7.3.1, "Significance Criteria," above).

**Mitigation 7-3.** Adjust the signal cycle lengths. The resulting LOS would be C- during the AM peak hour. Implementation of this measure would therefore reduce the project impact to a ***less-than-significant level.***



SOURCE: CCS Planning and Engineering

## 2020 PROJECT CONDITIONS

### PEAK-HOUR INTERSECTION VOLUMES AND LANE GEOMETRY

Figure 7.5

Table 7.11  
2020 WITH PROJECT CONDITIONS INTERSECTION LEVELS OF SERVICE

Intersection <sup>1</sup>	2020 With Project Conditions						Change from No Project to Project Conditions					
	AM Peak Hour LOS	AM Peak Hour Delay	V/C	PM Peak Hour LOS	PM Peak Hour Delay	V/C	AM Peak Hour LOS	AM Peak Hour Delay	V/C	PM Peak Hour LOS	PM Peak Hour Delay	V/C
1. Mathilda Ave. and Maude Ave.	C-	25	0.84	E	53	1.04	--	0	-0.01	C > E	7	0.02
2. Mathilda Ave. and California Ave.	D	35	0.90	D	35	0.90	--	0	0.00	--	0	0.00
3. Mathilda Ave. and Washington Ave.	C	21	0.90	D+	27	0.90	--	3	0.05	--	4	0.01
4. Mathilda Ave. and McKinley Ave.	B	7	0.65	B	11	0.79	--	0	0.05	--	1	0.04
5. Mathilda Ave. and Iowa Ave.	B	12	0.67	C	22	0.89	--	1	0.03	--	3	0.03
6. Mathilda Ave. and Olive Ave.	C	17	0.89	B	12	0.69	--	-2	-0.01	--	-1	-0.05
7. Mathilda Ave. and El Camino Real	D+	26	0.81	D	30	0.92	--	0	-0.03	--	-1	-0.03
8. Mathilda Ave. and Talisman Dr.	C+	16	0.70	D+	26	0.76	--	0	-0.01	--	0	0.00
9. Sunnyvale Ave. and Evelyn Ave.	C	18	0.68	C	19	0.74	--	1	-0.01	--	-2	-0.03
10. Sunnyvale Ave. and Washington Ave.	B	9	0.31	B-	14	0.63	--	0	0.01	--	1	0.03
11. Sunnyvale Ave. and McKinley Ave.	B	7	0.33	B	10	0.43	--	0	0.00	--	0	0.02
12. Sunnyvale Ave. and Iowa Ave.	B	8	0.38	B	10	0.51	--	0	0.04	--	1	0.01
13. Sunnyvale Ave. and Olive Ave.	B	11	0.48	B	11	0.61	--	0	0.00	--	1	0.06
14. Sunnyvale Ave. and El Camino Real	E+	40	0.52	E	56	0.97	D > E+	0	-0.01	--	2	0.02
15. Sunnyvale-Saratoga Rd. and Remington Dr.	F	106	1.13	E	48	1.01	D > F	4	0.01	D > E	0	-0.01
16. Sunnyvale-Saratoga Rd. and Fremont Ave.	E	49	0.99	E+	41	0.91	D > E	-3	-0.02	D > E+	0	0.00
17. De Anza Boulevard and Homestead Rd.	E	49	1.02	E-	59	1.07	D > E	0	-0.01	--	0	0.00
18. Mary Ave. and Central Expwy.	F	103	1.18	F	101	1.16	D > F	0	0.00	D > F	0	0.00
19. Mary Ave. and Evelyn Ave.	D+	27	0.88	E-	58	1.01	--	0	0.00	C > E-	1	0.01
20. Mary Ave. and El Camino Real	D	36	0.95	F	84	1.13	--	0	0.00	D > F	3	0.00
21. El Camino Real and Hollenbeck Ave.	E+	42	0.72	D-	38	0.65	D > E+	-1	0.00	--	16	-0.02
22. El Camino Real and Remington Dr.	E+	44	0.73	E	48	0.80	--	0	0.01	--	-1	-0.01
23. El Camino Real and Wolfe Rd.	E	51	0.97	E	50	0.90	--	0	0.00	--	2	0.02
24. Wolfe Rd. and Fremont Ave.	D	35	0.55	D	33	0.88	--	-1	0.00	--	1	0.03
25. Washington Ave. and Town Center Ln.	B	7	0.09	B	9	0.33	--	1	0.00	--	0	0.02
26. Washington Ave. and Frances St. (Unsignalized)	A (A)	1 (5)	N/A	A (B)	2 (8)	N/A	--	--	--	--	--	--
27. Washington Ave. and Murphy Ave. (Unsignalized)	A (B)	1 (5)	N/A	A (B)	1 (6)	N/A	--	--	--	--	--	--
28. Iowa Ave. and Town Center Ln.	B	12	0.19	B	12	0.37	--	0	0.05	--	0	0.04
29. Iowa Ave. and Murphy Ave.	B	7	0.09	B	10	0.16	--	0	0.00	--	0	0.00
30. Evelyn Ave. and Frances St.	B-	13	0.24	C+	15	0.54	--	-1	-0.03	--	-2	-0.03
31. Evelyn Ave. and Agena Wy.	A	5	0.29	A	4	0.37	--	1	0.01	--	0	-0.02
32. De Anza Blvd. and I-280 Southbound Ramps	D	37	0.94	E	44	1.04	--	0	0.00	D	1	0.01
33. De Anza Blvd. and I-280 Northbound Ramps	D	31	0.85	D	28	0.86	--	-1	-0.03	--	-1	0.00

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Intersections are numbered according to Figure 7-5.

<sup>2</sup> Impacts are designated in **BOLD ITALICS** type.

<sup>3</sup> For unsignalized intersections: values in parentheses indicate worst-case movement LOS and delay.

**Impact 7-4: Impacts on Intersections (Project Condition or No Project Condition).**

Additional intersections would be impacted from cumulative traffic growth by the year 2020 with or without the addition of project traffic. The following intersections would be subject to a deterioration in operation (LOS) from acceptable to unacceptable City of Sunnyvale level of service standards:

- Mathilda Avenue and Maude Avenue: a change from LOS C to E in the PM peak hour,
- Sunnyvale Avenue and El Camino Real: a change from LOS D to E+ in the AM peak hour,
- Sunnyvale-Saratoga Road and Remington Drive: a change from LOS D to F in the AM peak hour, and from D to E in the PM peak hour;
- Sunnyvale-Saratoga Road and Fremont Avenue: a change from LOS D to E in the AM and PM peak hours,
- De Anza Boulevard and Homestead Road: a change from LOS D to E in the AM peak hour,
- Mary Avenue and Central Expressway: a change from LOS D to F in the AM and PM peak hour,
- Mary Avenue and Evelyn Avenue: a change from LOS C- to E- in the PM peak hour,
- Mary Avenue and El Camino Real: a change from LOS D to F in the PM peak hour,
- El Camino Real and Hollenbeck Avenue: a change from LOS D- to E+ in the AM peak hour, and
- De Anza Boulevard and I-280 southbound ramps: a change from LOS D+ to E in the PM peak hour.

These deteriorations in intersection operation would represent a ***potentially significant cumulative impact*** (see criterion 7.3.1(c) in "Significance Criteria").

**Mitigation 7-4.** In anticipation of these cumulative intersection impacts, the City of Sunnyvale General Plan Land Use and Transportation Element includes mitigating projects to provide a northbound right turn lane at the intersection of Sunnyvale-Saratoga Road and Remington Drive, and a southbound right turn lane at the intersection of Mary Avenue and El Camino Real. The City of Sunnyvale is currently also developing a *Sunnyvale Transportation Strategic Program* that will include these mitigating projects, and mitigating projects for the other significantly impacted Sunnyvale intersections. The *Transportation Strategic Program* will also identify funding for these four intersection improvement projects through adoption of a Transportation Impact Fee. Implementation of the *Transportation Strategic Program* would therefore reduce identified cumulative operational impacts at these four intersections to a ***less than significant level.***

The intersection of De Anza Boulevard and Homestead Road is within the jurisdiction of the City of Cupertino. Provision of an additional southbound through lane and signal cycle length adjustment at this CMP intersection would result in LOS E operation during the PM peak hour. However, previous discussion with the City of Cupertino indicates that this improvement is considered infeasible. Therefore this particular cumulative intersection impact is considered to be ***significant and unavoidable.***

(d) 2020 Cumulative Conditions (Scenario 3 Plus Moffett Park)--Traffic Volume Estimates. A Cumulative Conditions (Scenario 3 Plus Moffett Park) analysis has also been performed for the year 2020. This scenario includes the 2020 Project Conditions (Scenario 3) traffic plus the added traffic from the City-selected "Preferred Alternative" for the Moffett Park site. The procedure to forecast traffic impacts for this scenario using the City of Sunnyvale travel model, was identical to the one used to determine 2020 Project Conditions (Scenario 3). Compared to the Project Conditions (Scenario 1), the land use data for this Cumulative Conditions scenario differs only in the zones covering the Moffett Park area of Sunnyvale. Under the "Preferred Alternative," the Moffett Park zones would have an overall increase of about six million square feet in research and development land use.

The differences between the 2020 No Project and 2020 Cumulative Conditions model volumes for all study freeway segments and study intersections were calculated to identify impacts associated with this scenario. This traffic growth increment was added to the 2020 No Project Conditions volumes for each study freeway segment and intersection to estimate the Cumulative Conditions volumes. The volumes were reset to the existing count volumes if the projected volumes were less than existing levels.

### **2020 Cumulative Conditions (Scenario 3 Plus Moffett Park)--Freeway Levels of Service**

**Impacts.** Tables 7.12 and 7.13 present freeway segment LOS calculation results under 2020 Cumulative Conditions for the AM and PM peak hours, respectively. The tables indicate that the 2020 Cumulative Conditions (Scenario 3 Plus Moffett Park) traffic would not impact any additional study freeway segments compared to the 2020 Project Conditions (Scenario 3 without Moffett Park). Therefore, cumulative effects-plus-Moffett-Park on the study freeway segments would represent a *less-than-significant impact*.

**Mitigation.** No significant cumulative-plus-Moffett-Park impacts on study freeway segments have been identified; no mitigation associated with cumulative impacts is required.

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**2020 Cumulative Conditions (Scenario 3 Plus Moffett Park)--Intersection Levels of Service.** Figure 7.6 presents the traffic volumes estimated at the study intersections under 2020 Cumulative Conditions (Scenario 3 Plus Moffett Park). Table 7.14 presents intersection LOS calculation results for 2020 Cumulative Plus Moffett Park Conditions. The table indicates that the 2020 Cumulative Conditions (Scenario 3 Plus Moffett Park) traffic would *not impact* any additional intersections compared to 2020 Project Conditions (Scenario 3).

**Mitigation.** No significant cumulative-plus-Moffett-Park impacts on study intersections have been identified; no mitigation associated with cumulative impacts is required.

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**Neighborhood Street Impacts.** The potential impact of the project-facilitated growth scenario on the traffic conditions along nearby neighborhood streets has also been assessed. Table 7.15 presents the existing peak-hour traffic volumes, the traffic added under Project Conditions, total traffic, and the percent increase for each of the study segments. The existing volumes are based on machine counts or turning movement counts at adjacent intersections conducted in November and December 1998.

Typically, for neighborhood streets with existing peak hour traffic volumes above 500 trips, additional traffic would not be noticeable by the residents in locations where it represents less than a 15 percent increase over existing volumes. In general, the issue of traffic increases on neighborhood streets with peak hour volumes below 500 vehicles is one of resident perception rather than quantifiable roadway capacity or safety. For the study street segments listed in Table 7.15, the existing-plus-project increment volumes present the percentage increase anticipated for residential streets in the area, for informational purposes. The anticipated existing-plus-project volumes are well below typical residential street volumes. Therefore, the project is considered to result in a *less-than-significant* impact on study neighborhood street segments. Nevertheless, the potential exists for residents on some project study streets to perceive an increase in traffic volumes from the project. In cases where neighborhood streets are experiencing existing peak hour traffic levels below 500 trips, even a doubling of traffic volumes (a 200 percent increase) would be well within normally acceptable levels, based on conventional traffic engineering standards. For the study street segments listed in Table 7.15,

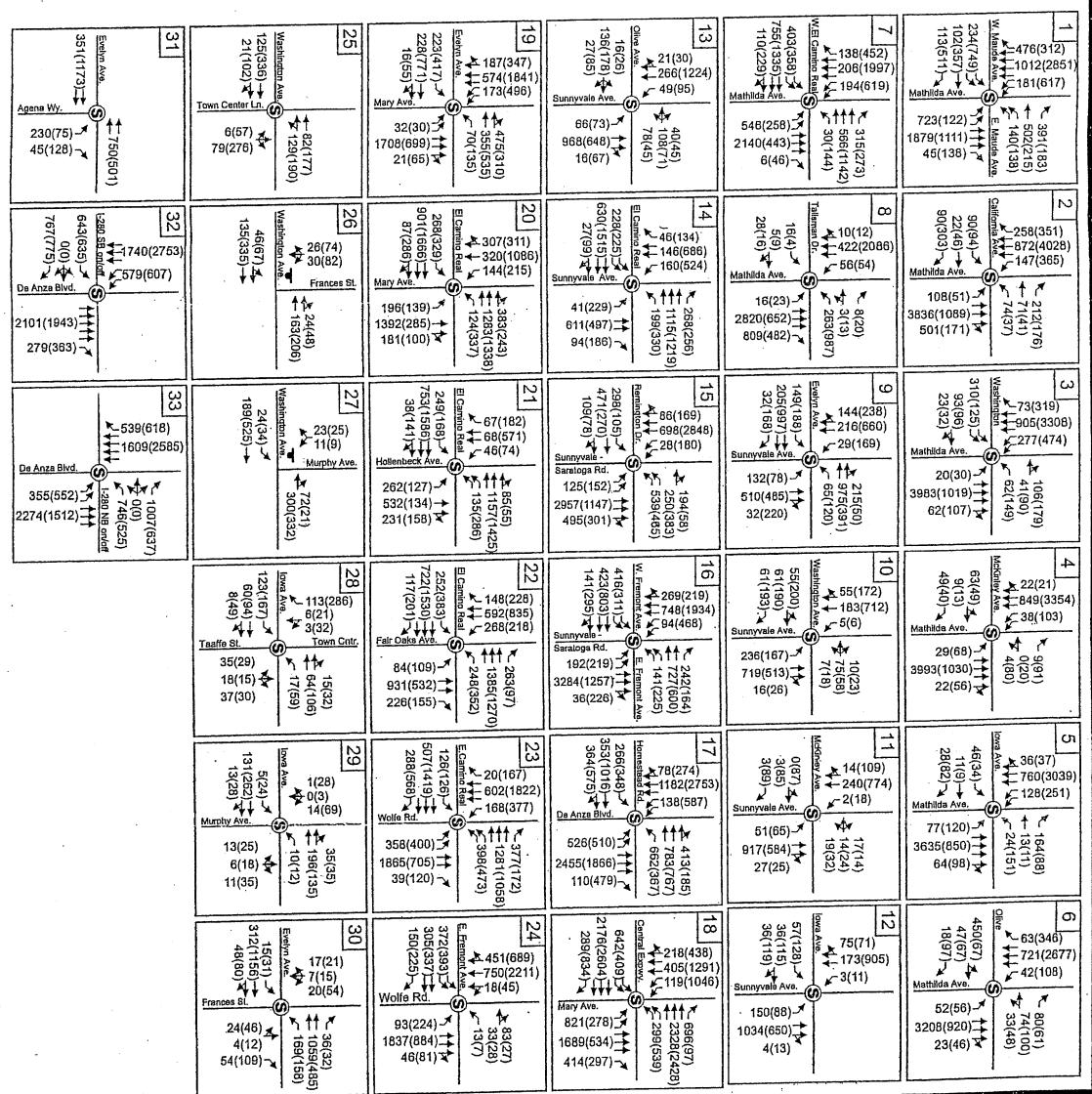


Figure 7.6

SOURCE: CCS Planning and Engineering

## 2020 CUMULATIVE CONDITIONS PEAK-HOUR INTERSECTION VOLUMES AND LANE GEOMETRY

Downtown Improvement Program Update EIR • City of Sunnyvale, CA

**Table 7.12  
 2020 CUMULATIVE CONDITIONS (SCENARIO 3 PLUS MOFFETT PARK): FREEWAY OPERATIONS--AM PEAK HOUR**

Freeway	Segment	Lanes	Capacity	Existing (2001)		2020 Cumulative	
				Existing Trips	LOS	Increment Trips	LOS
101 NB	South of Montague Expy.	3 Mixed <sup>1</sup>	6,900	5,460	F	263	E
		1 HOV <sup>2</sup>	2,300	1,790	E	293	F
	Montague Expy. to Bowers Ave.	3 Mixed	6,900	6,300	D	783	E
		1 HOV	2,300	2,040	C	135	D
	Bowers Ave. to Lawrence Expyw.	3 Mixed	6,900	5,940	C	925	D
		1 HOV	2,300	1,860	B	75	D
	Lawrence Expyw. to Fair Oaks Ave.	3 Mixed	6,900	4,860	A	573	D
		1 HOV	2,300	1,170	A	246	C
	Fair Oaks Ave. to Mathilda Ave.	3 Mixed	6,900	6,770	D	810	D
		1 HOV	2,300	1,440	A	0	C
	Mathilda Ave. to Route 237	3 Mixed	6,900	4,740	F	0	F
		1 HOV	2,300	1,790	F	0	E
	Route 237 to Ellis St.	3 Mixed	6,900	3,960	F	528	F
		1 HOV	2,300	1,440	F	0	F
	Ellis St. to Moffett Blvd.	3 Mixed	6,900	3,960	F	937	F
		1 HOV	2,300	1,440	F	0	F
	Moffett Blvd. to Route 85	3 Mixed	6,900	3,690	F	0	F
		1 HOV	2,300	1,340	F	0	F
	Route 85 to Shoreline Blvd.	3 Mixed	6,900	4,200	F	0	F
		1 HOV	2,300	2,100	D	21	D
	North of Shoreline Blvd.	3 Mixed	6,900	4,500	F	0	F
		1 HOV	2,300	2,200	D	2	D
101 SB	North of Shoreline Blvd.	3 Mixed	6,900	4,260	F	27	F
		1 HOV	2,300	1,980	C	85	D
	Shoreline Blvd. to Route 85	3 Mixed	6,900	5,460	F	52	E
		1 HOV	2,300	1,930	B	389	D
	Route 85 to Moffett Blvd.	3 Mixed	6,900	6,900	D	0	D
		1 HOV	2,300	1,800	B	32	D
	Moffett Blvd. to Ellis St.	3 Mixed	6,900	4,950	F	149	F
		1 HOV	2,300	1,620	A	15	D
	Ellis St. to Route 237	3 Mixed	6,900	4,950	F	71	F
		1 HOV	2,300	1,620	A	4	D
	Route 237 to Mathilda Ave.	3 Mixed	6,900	6,450	D	44	D
		1 HOV	2,300	1,680	B	0	D
	Mathilda Ave. to Fair Oaks Ave.	3 Mixed	6,900	6,300	D	190	E
		1 HOV	2,300	1,680	B	0	B
	Fair Oaks Ave. to Lawrence Expyw.	3 Mixed	6,900	5,880	E	137	E
		1 HOV	2,300	1,740	B	13	D
	Lawrence Expyw. to Bowers Ave.	3 Mixed	6,900	5,880	E	190	E
		1 HOV	2,300	780	A	0	B
	Bowers Ave. to Montague Expyw.	3 Mixed	6,900	5,760	B	263	D
		1 HOV	2,300	1,040	A	0	B
	South of Montague Expyw.	3 Mixed	6,900	4,680	A	422	D
		1 HOV	2,300	850	A	0	B

12.7%

Table 7.12 (continued)

Freeway	Segment	Lanes	Capacity	2020 Cumulative		LOS	% Impact
				Existing (2001) Existing Trips	Increment Trips		
237 EB	West of Route 85 (to El Camino Real)	2 Total (Mixed) <sup>3</sup>	4,600	2,760	A	93	C
	Route 85 to Central Expwy.	1 (HOV)	2,300	484	A	25	A
		2 Total (Mixed)	4,600	2,960	F	518	11.3%
	Central Expwy. to Maude Ave.	1 (HOV)	2,300	841	B	217	C
		2 Total (Mixed)	4,600	3,180	F	900	19.6%
	Maude Ave. to U.S. 101	1 (HOV)	2,300	774	B	269	C
		2 Total (Mixed)	4,600	3,250	F	938	F
	U.S. 101 to Mathilda Ave.	1 (HOV)	2,300	559	A	218	B
		2 Total (Mixed)	4,600	2,610	F	689	F
	Mathilda Ave. to Fair Oaks Ave.	1 (HOV)	2,300	386	A	155	A
		2 Mixed	4,600	3,400	F	98	F
	Fair Oaks Ave. to Lawrence Expwy.	1 HOV	2,300	1,620	A	211	D
		2 Mixed	4,600	4,500	D	5	D
	Lawrence Expwy. to Great America Pkwy.	1 HOV	2,300	2,040	B	5	D
		2 Mixed	4,600	3,180	F	0	0
	Great America Pkwy. to N. First St.	1 HOV	2,300	1,680	B	5	D
		2 Mixed	4,600	3,640	F	0	0
	East of N. First St.	1 HOV	2,300	1,170	A	67	C
		2 Mixed	4,600	3,960	B	0	D
		1 HOV	2,300	910	A	100	B
237 WB	East of N. First St.	2 Mixed	4,600	4,300	D	75	D
	N. First St. to Great America Pkwy.	1 HOV	2,300	1,560	A	839	D
		2 Mixed	4,600	3,850	B	345	D
	Great America Pkwy. to Lawrence Expwy.	1 HOV	2,300	1,740	B	939	D
		2 Mixed	4,600	3,240	A	634	D
	Lawrence Expwy. to Fair Oaks Ave.	1 HOV	2,300	1,380	A	791	D
		2 Mixed	4,600	3,480	B	833	D
	Fair Oaks Ave. to Mathilda Ave.	1 HOV	2,300	1,800	B	776	D
		2 Total (Mixed)	4,600	3,950	A	1,318	D
	Mathilda Ave. to U.S. 101	1 (HOV)	2,300	766	B	280	C
		2 Total (Mixed)	4,600	3,720	B	537	D
	U.S. 101 to Maude Ave.	1 (HOV)	2,300	567	A	174	B
		2 Total (Mixed)	4,600	3,120	A	732	D
	Maude Ave. to Central Expwy.	1 (HOV)	2,300	615	A	209	B
		2 Total (Mixed)	4,600	1,690	A	502	C
	Central Expwy. to Route 85	1 (HOV)	2,300	435	A	180	A
		2 Total (Mixed)	4,600	2,640	A	107	C
	West of Route 85 (to El Camino Real)	1 (HOV)	2,300	602	A	58	B
		2 Total (Mixed)	4,600	3,960	C	94	D
		1 (HOV)	2,300	900	B	47	B
85 NB	South of I-280	2 Mixed	4,600	2,320	F	537	F
	I-280 to Homestead Rd.	1 HOV	2,300	910	A	623	C
		2 Mixed	4,600	3,660	F	408	F
	Homestead Rd. to Fremont Ave.	1 HOV	2,300	2,040	B	708	D
		2 Mixed	4,600	2,280	F	417	F
		1 HOV	2,300	1,680	B	699	D

11.7%  
 8.9%  
 9.1%

Table 7.12 (continued)

Freeway	Segment	Lanes	Capacity	Existing (2001)		2020 Cumulative	
				Existing Trips	LOS	Increment Trips	LOS
Fremont Ave. to El Camino Real	2 Mixed	4,600	3,450	F	F	248	5.4%
El Camino Real to Route 237	1 HOV	2,300	1,040	A	D	675	
Route 237 to Central Expwy.	2 Mixed	4,600	4,320	E	F	840	18.3%
North of Central Expwy. (to U.S. 101)	1 HOV	2,300	590	A	B	318	
	2 Mixed	4,600	3,850	B	D	493	
	1 HOV	2,300	1,110	A	C	149	
	2 Mixed	4,600	3,160	F	F	930	
	1 HOV	2,300	980	A	C	262	20.2%
85 SB	North of Central Expwy. (to U.S. 101)	2 Mixed	4,600	1,560	A	0	B
	1 HOV	2,300	780	A	A	0	B
Central Expwy. To Route 237	2 Mixed	4,600	1,950	A	A	17	B
Route 237 to El Camino Real	1 HOV	2,300	1,110	A	A	7	C
El Camino Real to Fremont Ave.	2 Mixed	4,600	3,000	A	D	183	
Fremont Ave. to Homestead Rd.	1 HOV	2,300	1,170	A	C	166	
Homestead Rd. to I-280	2 Mixed	4,600	2,640	A	D	257	
South of I-280	1 HOV	2,300	1,200	A	C	150	
	2 Mixed	4,600	4,180	C	D	312	
	1 HOV	2,300	850	A	B	162	
I-280 EB	West of Route 85	3 Mixed	6,900	6,120	B	440	D
	1 HOV	2,300	330	A	A	65	A
Route 85 to De Anza Blvd.	3 Mixed	6,900	5,780	B	D	222	
De Anza Blvd. to Wolfe Rd.	1 HOV	2,300	390	A	A	43	A
East of Wolfe Rd.	3 Mixed	6,900	6,440	C	D	301	
	1 HOV	2,300	520	A	A	37	A
	3 Mixed	6,900	5,400	B	D	273	
	1 HOV	2,300	780	A	B	154	
I-280 WB	East of Wolfe. Rd.	3 Mixed	6,900	4,260	F	56	F
	1 HOV	2,300	2,150	C	D	224	
Wolfe Rd. to De Anza Blvd.	3 Mixed	6,900	4,650	F	F	370	5.4%
De Anza Blvd. to Route 85	1 HOV	2,300	1,740	B	D	107	
West of Route 85	3 Mixed	6,900	5,940	B	D	82	
	1 HOV	2,300	850	A	B	125	
	3 Mixed	6,900	4,950	F	F	243	
	1 HOV	2,300	1,440	A	D	141	

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Mixed = mixed-flow (unrestricted) lane.

<sup>2</sup> HOV = high-occupancy vehicle (car pool) lane.

<sup>3</sup> Facility type in parenthesis indicates future condition.

<sup>4</sup> "Existing" volumes on future HOV facilities, shown underlined, based on ratio from model and assumed to operate at average speed of 65 mph.

Table 7.13  
**2020 CUMULATIVE CONDITIONS (SCENARIO 3 PLUS MOFFETT PARK): FREEWAY OPERATIONS--PM PEAK HOUR**

Freeway	Segment	Lanes	Capacity	Existing (2001)		2020 Cumulative		% Impact
				Existing Trips	LOS	Increment Trips	LOS	
101 NB	South of Montague Expy.	3 Mixed <sup>1</sup> 1 HOV <sup>2</sup>	6,900 2,300	5,940 850	B A	571 108	D B	
	Montague Expy. to Bowers Ave.	3 Mixed 1 HOV	6,900 2,300	5,940 1,110	C A	465 0	D C	
	Bowers Ave. to Lawrence Expy.	3 Mixed 1 HOV	6,900 2,300	6,600 850	C A	0 0	D B	
	Lawrence Expy. to Fair Oaks Ave.	3 Mixed 1 HOV	6,900 2,300	5,220 1,040	A A	0 0	B D	
	Fair Oaks Ave. to Mathilda Ave.	3 Mixed 1 HOV	6,900 2,300	4,500 910	A A	56 0	B D	
	Mathilda Ave. to Route 237	3 Mixed 1 HOV	6,900 2,300	5,040 1,200	B A	0 0	D C	
	Route 237 to Ellis St.	3 Mixed 1 HOV	6,900 2,300	4,500 1,380	F A	254 0	F C	3.7%
	Ellis St. to Moffett Blvd.	3 Mixed 1 HOV	6,900 2,300	4,500 1,380	F A	196 112	F D	2.8%
	Moffett Blvd. to Route 85	3 Mixed 1 HOV	6,900 2,300	4,550 1,960	F F	125 31	F E	1.8%
	Route 85 to Shoreline Blvd.	3 Mixed 1 HOV	6,900 2,300	4,350 1,320	F A	0 20	F C	0.0%
	North of Shoreline Blvd.	3 Mixed 1 HOV	6,900 2,300	4,500 1,980	F B	0 7	F D	0.0%
101 SB	North of Shoreline Blvd.	3 Mixed 1 HOV	6,900 2,300	3,870 2,040	F C	0 0	F D	0.0%
	Shoreline Blvd. to Route 85	3 Mixed 1 HOV	6,900 2,300	5,360 1,800	E B	0 0	E D	
	Route 85 to Moffett Blvd.	3 Mixed 1 HOV	6,900 2,300	5,940 1,440	C A	247 0	D C	
	Moffett Blvd. to Ellis St.	3 Mixed 1 HOV	6,900 2,300	5,940 1,260	C A	0 0	D C	
	Ellis St. to Route 237	3 Mixed 1 HOV	6,900 2,300	5,940 1,260	C A	345 0	D C	
	Route 237 to Mathilda Ave.	3 Mixed 1 HOV	6,900 2,300	5,220 1,320	A A	0 0	D C	
	Mathilda Ave. to Fair Oaks Ave.	3 Mixed 1 HOV	6,900 2,300	3,360 1,040	F A	497 0	F B	7.2%
	Fair Oaks Ave. to Lawrence Expy.	3 Mixed 1 HOV	6,900 2,300	4,050 1,170	F A	108 0	F F	1.6%
	Lawrence Expy. to Bowers Ave.	3 Mixed 1 HOV	6,900 2,300	3,210 1,860	F B	370 806	C D	11.7%
	Bowers Ave. to Montague Expy.	3 Mixed 1 HOV	6,900 2,300	3,840 1,560	F F	380 232	F F	3.4%
	South of Montague Expy.	3 Mixed 1 HOV	6,900 2,300	3,480 1,380	F F	249 362	F F	10.8%
						249		5.2%
						362		10.8%

Table 7.13 (continued)

Freeway	Segment	Existing (2001)			2020 Cumulative Increment Trips			LOS	% Impact
		Lanes	Capacity	Existing Trips	LOS	Trips	LOS		
237 EB	West of Route 85 (to El Camino Real)	2 Total (Mixed)	4,600	2,760	A	236	D		
	Route 85 to Central Expwy.	1 (HOV)	2,300	687	B	57	B		
	Central Expwy. to Maude Ave.	2 Total (Mixed)	4,600	2,470	A	376	C		
	Maude Ave. to U.S. 101	1 (HOV)	2,300	356	A	22	A		
	U.S. 101 to Mathilda Ave.	2 Total (Mixed)	4,600	1,690	A	640	C		
	Mathilda Ave. to Fair Oaks Ave.	1 (HOV)	2,300	518	A	219	B		
	Fair Oaks Ave. to Lawrence Expwy.	2 Total (Mixed)	4,600	1,690	A	841	C		
	Lawrence Expwy. to Great America Pkwy.	1 (HOV)	2,300	340	A	180	A		
	Great America Pkwy. to N. First St.	2 Total (Mixed)	4,600	2,760	A	782	D		
	East of N. First St.	1 HOV	2,300	408	A	126	A		
		2 Mixed	4,600	2,400	A	625	D		
		1 HOV	2,300	650	A	353	B		
		2 Mixed	4,600	2,520	A	429	D		
		1 HOV	2,300	460	A	492	B		
		2 Mixed	4,600	3,120	A	432	D		
		1 HOV	2,300	850	A	452	C		
		2 Mixed	4,600	3,480	B	327	D		
		1 HOV	2,300	1,040	A	568	D		
		2 Mixed	4,600	3,350	F	164	F	3.6%	
		1 HOV	2,300	910	A	546	C		
					B	0	D		
					E	37	A		
					A	0	E		
					A	96	B		
					C	0	D		
					A	0	A		
					A	63	D		
					B	0	C		
					B	67	D		
					B	271	B		
					B	73	B		
					C	885	E		
					A	125	B		
					C	921	E		
					B	163	B		
					F	795	A		
					A	138	F		
					F	150	A		
					A	8	F		
					F	93	A		
					A	3	A		
85 NB	South of I-280	2 Mixed	4,600	1,690	A	753	C		
	I-280 to Homestead Rd.	1 HOV	2,300	330	A	110	A		
	Homestead Rd. to Fremont Ave.	2 Mixed	4,600	2,340	A	433	C		
		1 HOV	2,300	260	A	107	A		
		2 Mixed	4,600	4,080	B	443	D		
		1 HOV	2,300	3,906	A	97	A		

Table 7.13 (continued)

Freeway	Segment	Lanes	Capacity	Existing (2001)		2020 Cumulative Increment Trips		LOS	% Impact
				Existing Trips	LOS	Trips	Increment		
Fremont Ave. to El Camino Real	2 Mixed	4,600	3,000	A		420		D	
El Camino Real to Route 237	1 HOV	2,300	280	A		85		A	
Route 237 to Central Expwy.	2 Mixed	4,600	1,950	A		387		C	
North of Central Expwy. (to U.S. 101)	1 HOV	2,300	130	A		0		A	
	2 Mixed	4,600	2,340	A		210		C	
	1 HOV	2,300	260	A		73		A	
	2 Mixed	4,600	2,080	A		655		C	
	1 HOV	2,300	520	A		193		B	
85 SB	North of Central Expwy. (to U.S. 101)	2 Mixed	4,600	3,450	F	25		F	0.5%
	1 HOV	2,300	780	A		52		B	
Central Expwy. To Route 237	2 Mixed	4,600	2,420	F		139		F	3.0%
Route 237 to El Camino Real	1 HOV	2,300	1,170	A		75		C	
El Camino Real to Fremont Ave.	2 Mixed	4,600	2,740	F		208		F	4.5%
Fremont Ave. to Homestead Rd.	1 HOV	2,300	1,560	A		721		D	
Homestead Rd. to I-280	2 Mixed	4,600	3,000	F		317		F	6.9%
South of I-280	1 HOV	2,300	1,800	B		597		D	
	2 Mixed	4,600	2,750	F		491		F	10.7%
	1 HOV	2,300	1,500	A		536		D	
	2 Mixed	4,600	4,070	C		449		D	
	1 HOV	2,300	910	A		562		C	
	2 Mixed	4,600	4,260	F		560		F	12.2%
	1 HOV	2,300	1,440	A		533		D	
I-280 EB	West of Route 85	3 Mixed	6,900	4,920	F			F	10.9%
	1 HOV	2,300	1,380	A		140		D	
Route 85 to De Anza Blvd.	3 Mixed	6,900	4,280	F		549		F	8.0%
De Anza Blvd. to Wolfe Rd.	1 HOV	2,300	1,170	A		142		C	
East of Wolfe Rd.	3 Mixed	6,900	4,500	F		608		F	8.8%
	1 HOV	2,300	1,260	A		141		C	
	3 Mixed	6,900	6,750	D		355		E	
	1 HOV	2,300	1,320	A		400		D	
I-280 WB	East of Wolfe Rd.	3 Mixed	6,900	5,580	B	0		D	
	1 HOV	2,300	520	A		135		B	
Wolfe Rd. to De Anza Blvd.	3 Mixed	6,900	5,760	B		0		D	
De Anza Blvd. to Route 85	1 HOV	2,300	720	A		93		B	
West of Route 85	3 Mixed	6,900	4,500	A		0		D	
	1 HOV	2,300	520	A		149		B	
	3 Mixed	6,900	5,940	C		52		D	
	1 HOV	2,300	460	A		306		B	

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Mixed = mixed-flow (unrestricted) lane.

<sup>2</sup> HOV = high-occupancy vehicle (car pool) lane.

<sup>3</sup> Facility type in parenthesis indicates future condition.

<sup>4</sup> "Existing" volumes on future HOV facilities, shown underlined, based on ratio from model and assumed to operate at average speed of 65 mph.

Table 7.14  
 2020 CUMULATIVE CONDITIONS INTERSECTION LEVELS OF SERVICE

Intersection <sup>1</sup>	2020 Cumulative Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay	V/C	LOS	Delay	V/C
1. Mathilda Ave. and Maude Ave.	D+	25	0.86	E	45	1.01
2. Mathilda Ave. and California Ave.	D	35	0.90	D	35	0.90
3. Mathilda Ave. and Washington Ave.	C	21	0.92	D+	26	0.89
4. Mathilda Ave. and McKinley Ave.	B	8	0.67	B	11	0.79
5. Mathilda Ave. and Iowa Ave.	B	12	0.69	C	22	0.87
6. Mathilda Ave. and Olive Ave.	D-	37	0.98	B	12	0.70
7. Mathilda Ave. and El Camino Real	D+	25	0.81	D	30	0.93
8. Mathilda Ave. and Talisman Dr.	C+	15	0.71	D+	27	0.78
9. Sunnyvale Ave. and Evelyn Ave.	C	19	0.72	C	21	0.77
10. Sunnyvale Ave. and Washington Ave.	B	10	0.31	B-	14	0.65
11. Sunnyvale Ave. and McKinley Ave.	B	7	0.34	B	10	0.44
12. Sunnyvale Ave. and Iowa Ave.	B	8	0.38	B	10	0.52
13. Sunnyvale Ave. and Olive Ave.	B	11	0.50	B	11	0.61
14. Sunnyvale Ave. and El Camino Real	E+	41	0.56	E	56	0.97
15. Sunnyvale-Saratoga Rd. and Remington Dr.	F	115	1.14	E	54	1.04
16. Sunnyvale-Saratoga Rd. and Fremont Ave.	E	53	1.01	E+	41	0.91
17. De Anza Boulevard and Homestead Rd.	E	48	1.02	F	66	1.10
18. Mary Ave. and Central Expwy.	E	47	0.83	E+	42	0.72
19. Mary Ave. and Evelyn Ave.	D+	27	0.88	E	55	1.00
20. Mary Ave. and El Camino Real	E+	41	0.99	F	88	1.13
21. El Camino Real and Hollenbeck Ave.	E+	43	0.74	D	37	0.63
22. El Camino Real and Remington Dr.	E+	43	0.72	E	48	0.81
23. El Camino Real and Wolfe Rd.	E-	57	1.02	E	49	0.91
24. Wolfe Rd. and Fremont Ave.	D	35	0.56	D	33	0.88
25. Washington Ave. and Town Center Ln.	B	8	0.10	B	10	0.34
26. Washington Ave. and Frances St. (Unsignalized)	A (A)	1 (5)	N/A	A (B)	2 (8)	N/A
27. Washington Ave. and Murphy Ave. (Unsignalized)	A (B)	1 (5)	N/A	A (B)	1 (6)	N/A
28. Iowa Ave. and Town Center Ln.	B	12	0.18	B	12	0.35
29. Iowa Ave. and Murphy Ave.	B	7	0.10	B	10	0.17
30. Evelyn Ave. and Frances St.	B-	13	0.26	C+	16	0.56
31. Evelyn Ave. and Agena Wy.	B+	7	0.37	A	4	0.39
32. De Anza Blvd. and I-280 Southbound Ramps	D	37	0.94	E+	43	1.03
33. De Anza Blvd. and I-280 Northbound Ramps	D	31	0.87	D	29	0.88

SOURCE: CCS Planning and Engineering, December 2002.

Notes:

<sup>1</sup> Intersections are numbered according to Figure 7.5.

<sup>2</sup> Impacts are designated in **BOLD ITALIC** type.

<sup>3</sup> For unsignalized intersections: values in parentheses indicate worst-case movement LOS and delay.

Table 7.15  
STREET SEGMENT TRAFFIC VOLUMES

<u>Street Segment</u>	<u>Peak Hour</u>	<u>Existing Traffic</u>	<u>Project Increment</u>	<u>Total</u>	<u>Percent Increase</u>
Washington Avenue west of Mathilda Avenue	AM	530	0	530	0%
	PM	600	27	627	4%
Iowa Avenue west of Mathilda Avenue	AM	170	0	170	0%
	PM	250	27	277	11%
McKinley Avenue east of Sunnyvale Avenue	AM	80	11	91	14%
	PM	130	78	208	60%
Olive Avenue east of Sunnyvale Avenue	AM	310	10	320	3%
	PM	380	38	418	10%
Taaffe Street south of Iowa Avenue	AM	60	24	84	40%
	PM	160	0	160	0%
Frances Street south of Iowa Avenue	AM	20	24	44	120%
	PM	30	0	30	0%
Murphy Street south of Iowa Avenue	AM	50	24	74	48%
	PM	130	0	130	0%

SOURCE: CCS Planning and Engineering, December 2002.

the existing plus project increment volumes are well below these levels--i.e., well below typical volumes for residential streets. Therefore, the project is considered to result in a ***less-than-significant impact*** on study neighborhood street segments.

**Mitigation.** No significant adverse impact has been identified; no mitigation is required.

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**Pedestrian, Bicycle, and Transit Impacts.** The impacts of the project on local pedestrian, bicycle, and transit activity are described below.

**Pedestrian Impacts.** Pedestrian access will be provided by existing sidewalks, crosswalks, and pedestrian signals at the signalized intersections. Pedestrian conditions will also be improved if project (Design Plan) recommended pedestrian facility modifications are implemented (widened sidewalks, etc.). Therefore, additional pedestrian traffic due to the proposed project is expected to have a ***less-than-significant impact***.

**Mitigation.** No significant impacts have been identified; no mitigation is required.

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**Bicycle Impacts.** Bicycle access will be provided by the existing bicycle facilities. In addition, a new bicycle lane has been planned and funded for Evelyn Avenue between Bernardo Avenue and Sunnyvale Avenue. The proposed project (*Downtown Design Plan*) also recommends additional bicycle facilities to be provided on streets in the vicinity of the project area. Additional bicycle traffic due to the proposed project is therefore expected to have a ***less-than-significant impact***.

**Mitigation.** No significant impacts have been identified; no mitigation is required.

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**Transit Impacts.** All the transit routes serving the project area have sufficient capacity to accommodate additional transit riders generated by the proposed project. Project-related effects on transit service would therefore represent a ***less-than-significant impact***.

**Mitigation.** No significant impacts have been identified; no mitigation is required.

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(i) **2020 Project Conditions Parking Impacts.** According to chapter 7 of the current (August 2002) *Downtown Design Plan*, the peak weekday parking demand for the project area on a "study" weekday is estimated to be approximately 6,650 spaces. Based on this estimate, approximately 7,000 (or 6,650 plus an additional 5 percent) public/shared parking spaces

would be needed to accommodate peak project area parking demands. This parking total can be adequately provided in several parking structures in the downtown area.

The net increase in parking demand due to the project was calculated based on City of Sunnyvale parking standards. Parking demands under 2020 No Project (Scenario 2) and 2020 Project Conditions (Scenario 3) for the downtown zones are summarized in Table 7.16. These calculated parking demands are strictly based on projected land use and parking rates, and do not take into account the effects of shared parking. The 2020 Project Conditions parking demand is greater than the 2020 No Project demand; however, the difference is largely due to parking demand generated by multi-family residential development, which would not share the same parking peak hours as office and retail land uses.

**Parking Impacts.** As a result of the project, the downtown area would require approximately 2,600 additional parking spaces. All parking spaces required for uses in Blocks 1a, 2, 3, 18, and 18a of the project area are sufficiently provided for in the *Downtown Design Plan* recommendations. The parking impacts of the project are therefore expected to be ***less-than-significant***.

**Mitigation.** As stated in the proposed project *Downtown Design Plan* component (Chapter 7), some new office and all new residential developments would be required to provide additional parking on- site. Additional retail and entertainment uses would be able to utilize parking from the project area parking district, but would be required to participate on a fair-share basis in funding the costs of existing or expanded parking district resources to the extent such resources are utilized.

Table 7.16  
PARKING DEMAND (SPACES)

<u>Scenario</u>	<u>Housing</u>		<u>Employment</u>			<u>Total</u>
	<u>Single Family</u>	<u>Multi-family</u>	<u>Office</u>	<u>Retail</u>	<u>Hotel</u>	
2020 No project	3276	4483	6065	6771	451	20596
2020 Project	<u>3276</u>	<u>6067</u>	<u>7358</u>	<u>6499</u>	<u>11</u>	<u>23201</u>
<b>Net Change</b>	<b>0</b>	<b>1584</b>	<b>1293</b>	<b>-272</b>	<b>-440</b>	<b>2605</b>

SOURCE: CCS Planning and Engineering, December 2002.

